

***IN THE UNITED STATES PATENT AND TRADEMARK OFFICE***

Applicant: Golshan, Khosrow  
Title: METHOD AND APPARATUS FOR OPTICAL  
PROCESSING  
Appl. No.: 09/630,883  
Filing Date: 08/02/2000  
Examiner: Chang, Audrey Y.  
Art Unit: 2872  
Confirmation No.: 7954

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P.O. Box 1450  
Alexandria, VA 22313-1450

**COMMUNICATION**

This Communication is intended to be fully responsive to the telephone conversation between Examiner Chang and the Applicant's representative, Jonathan Rowell, on March 25, 2009.

Examiner Chang stated that Table V on page 10 of the specification is not clear. A more scanable copy of the Table is attached herewith. Accordingly, the Applicant submits that no new matter has been added and respectfully requests acceptance of the Table and issuance of the above-referenced patent application.

Although the Applicant believes that no fee is required for this Request, the Commissioner is hereby authorized to charge any additional fees which may be required for this Request to Deposit Account No. 19-0741.

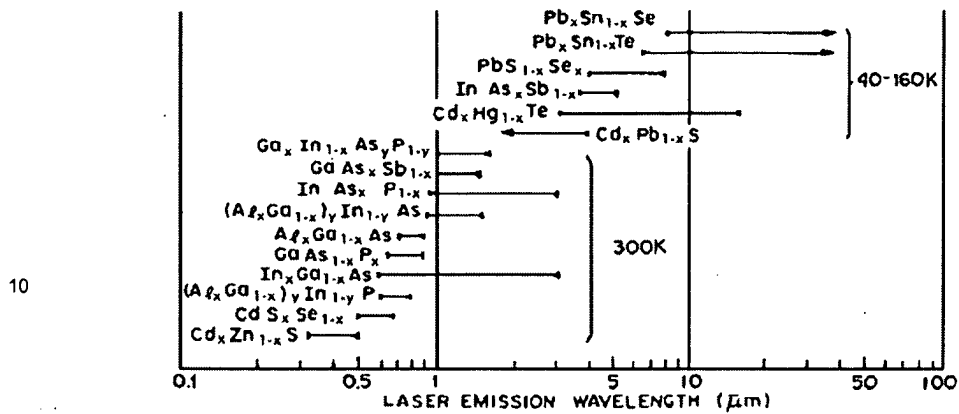
Respectfully submitted,

Date 03/27/2009

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**TABLE V:** Semiconductor Laser Materials.

The semiconductor laser 600 of FIG. 6 shows the basic structure of a p-n junction. A pair of parallel planes 625 and 627 are cleaved or polished perpendicular to the plain of the junction. The two remaining sides 630 and 632 of diode 600 are roughened to eliminate lasing in directions other than the main direction. Diode structure 600 is called a fabry-perot cavity. As current flowing through the p-n junction is increased, radiation 610 is emitted in the main direction 608 and 609 thereby providing lasing action.

Therefore, it is possible to construct an optical processing device having a plurality of light sources, such as lasers 600. Further, a plurality of optical gates, forming an optical processor 700, may be formed on a substrate 705, as depicted in FIG. 8. Substrate 705 (e.g., silicon, gallium arsenide, etc.) may be overlaid with a second material 710 (e.g., doped silicon, doped gallium arsenide, other nondoped materials, etc.) forming a plurality of gates patterned in second material 710. Further, the device may include a plurality of laser light sources 720 having a first layer 730 (e.g., semiconductor) overlaid with a second layer 740 (e.g., semiconductor) and having a doped junction 750